



ENERGY STAR[®] for Rural Electric Cooperatives

In December 2013, the United States Department of Agriculture (USDA) Rural Utilities Service finalized a rulemaking that enabled a new Energy Efficiency and Loan Conservation Program. The rulemaking encourages borrowers to use existing efficiency criteria such as ENERGY STAR.

This fact sheet, developed by the U.S. Environmental Protection Agency (US EPA), provides background for rural utilities about potentially relevant ENERGY STAR products, tools, and resources based on the experience of energy efficiency programs throughout the nation.

Energy Efficiency—An Important Part of our Nation's Resource Mix

Energy efficiency is a key component of the nation's energy resource mix and can also foster local economic development and wellbeing:

- Customers who participate in energy efficiency programs can reduce their monthly utility bills.
- Offering energy efficiency programs demonstrates a strong commitment to your local communities. Customers who don't directly participate can also benefit in several ways:
 - An investment in energy efficiency can create jobs and improve local economies. Instead of supplying electricity from outside of your community, energy efficiency relies on domestic and local companies, contractors, and retailers to provide energy management services and energy-saving products.
 - The broader market effects associated with these programs help make energy-efficient products and services more accessible to local communities.
 - Energy efficiency programs can defer distribution upgrades and costs less than generating or purchasing new electricity supply to meet growing demand and therefore prevent greater rate increases.¹
- By reducing monthly bill payments, energy efficiency targeted to lower income customers can also help reduce bill nonpayment or delinquency.



ENERGY STAR provides a powerful platform for implementing energy efficiency programs that make a real difference in communities.

- Over 150 electric cooperatives are already registered **ENERGY STAR partners**². Some have gone on to earn distinction as **ENERGY STAR Award winning partners**³. More than 700 utilities and other efficiency programs servicing 85% of U.S. households leverage the partnership.
- From the first ENERGY STAR qualified computer in 1992, the ENERGY STAR label can now be found on products in more than 70 different categories, with more than 4.8 billion products sold. Over 1.5 million new homes and 23,000 office buildings, schools, hospitals, and industrial plants have earned the ENERGY STAR label.
- Recognized by more than 85 % of American households, the ENERGY STAR label is the simple choice for energy efficiency.

¹ The American Council for an Energy Efficient Economy reports that electric utility energy efficiency programs are about one-half to one-third the cost of alternative new electricity resource options. (Source: ACEEE. *The Best Value for America's Energy Dollar: A National Review of the Cost of Utility Energy Efficiency Programs*. By Maggie Molina. March 25, 2014. Research Report U1402 (www.aceee.org/research-report/u1402).

² ENERGY STAR partners can be found at energystar.gov/partnersearch.

³ Information on current and past ENERGY STAR award winners can be found at www.energystar.gov/awards.

- Community health can benefit from energy efficiency programs as well. For example:
 - Properly sealing and insulating a home can improve indoor air quality—a tighter home envelope reduces the amount of humidity, dust, pollen, and pests that can enter a home.
 - Reducing peak energy production during hot summer days can reduce nitrogen oxide emissions from electrical generating units, which contribute to ground-level ozone formation. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion, and can worsen bronchitis, emphysema, and asthma.

What are some of the eligible activities and investments under the USDA RUS Energy Efficiency and Loan Conservation Program?

This document does not provide guidance on applying for the USDA Energy Efficiency and Loan Conservation Program or complying with requirements set forth in the rulemaking. It is intended to be a resource with respect to the following areas outlined by the Rural Electric Services Program as eligible for financing⁴:

- Community awareness and outreach programs
- Energy audits
- Energy efficiency measures on a consumer premises
- Re-lamping to more energy efficient lighting

Information on the USDA Energy Efficiency and Loan Conservation Program including other eligible activities and investments is available at www.rurdev.usda.gov/UEP_HomePage.html.

Community Awareness and Outreach Programs

While many people are interested in saving money on energy bills, they may not know where to start or may have trouble finding energy-efficient options or qualified experts to deliver home or building energy improvements. Education and outreach, not just to customers, but also to trade allies such as heating and cooling contractors, lighting distributors, and retailers, are essential to designing and delivering successful programs. Rural utilities that are budget or staff constrained may find numerous off-the-shelf tools, publications, and resources available free of charge from the ENERGY STAR program to be particularly useful.

For example:

- The recently launched My ENERGY STAR web tool provides utilities an opportunity to engage customers in a new way. My ENERGY STAR provides advice on more than 60 ways customers can save energy at home, with detailed information about how actions can save money and protect the environment. Utility partners can host the platform on their website and customize which advice to highlight.
- The ENERGY STAR Training Center (www.energystar.gov/training) provides ready-made sales associate trainings and sell sheets for ENERGY STAR products.
- ENERGY STAR National Campaigns offer a great way for programs to build community momentum around their efficiency goals. For example, the annual ENERGY STAR National Building Competition: *Battle of the Buildings* can be used to spur healthy competition among schools, hospitals, grocery stores, business districts, and others by encouraging them to benchmark their energy use with ENERGY STAR Portfolio Manager and compete to see who can save the most energy and water in one year.

See “ENERGY STAR Resources to Assist” for additional information on campaigns, tools and educational resources.

Energy Audits

Audit programs can take many forms ranging from online assessments to low-cost “clipboard” audits to more in-depth whole home assessments. Utilities wishing to provide online home assessment tools can leverage the ENERGY STAR Home Energy Yardstick and complementary Home Advisor tool either by linking to or hosting these tools on their website. The Yardstick helps homeowners understand how their home performs on a scale of 1-10 compared to similar homes; and the Home Advisor provides customized recommendations based on a few simple user inputs. (For additional information, see “ENERGY STAR Resources to Assist”).

Utilities often offer clipboard audits at a low cost or free of charge. They usually involve the following:

- An in-house discussion with the homeowner about comfort and energy use. A review of past utility bills sets the stage for discussing efficiency options and the homeowner’s willingness to make improvements;
- A quick exterior inspection of walls, foundations, and roofs—noting water intrusion/management issues, construction materials (brick, siding, wood, shingle type, chimney, attached garages, pools, etc.);

⁴ Broad areas defined by USDA Energy Efficiency and Loan Conservation Program, see www.rurdev.usda.gov/UEP_HomePage.html.

- A basic house footprint drawn with the square footage of the conditioned area;
- A quick visual check and recording of the age/type/condition of the home's major systems including the:
 - Shell—insulation levels in walls, floors and attics—identify obvious bypasses that should be sealed before any additional insulation is added.
 - Heating and cooling system—age and maintenance records, size and condition of furnace, central air conditioner or heat pump (check inside and outside units). Visually inspect all combustion venting and check air filter.
 - Distribution system—auditors “walk the ducts” to check that they are connected and sealed, and ensure all ducts in unconditioned areas are insulated.
 - Domestic hot water—check temperature setting, need for additional insulation for tank and pipes, and if gas/oil—check that flue is connected and there are no traces of back drafting. Check for low flow showerheads.
 - Windows—number of windows (gathered at exterior inspection), type and condition—is there an opportunity to upgrade—opportunity for storm windows?
 - Doors—number of doors, type and condition—opportunity for storm doors?
 - Appliances—how many refrigerators/freezers—any other large motors or equipment—does the house have well water?
 - Lighting—look for obvious opportunities to switch out incandescent lighting with ENERGY STAR certified bulbs; and
- Report back to homeowner the general condition of major systems—provide estimated savings potential and priority order of making efficiency improvements. (Savings calculations may need to be generated off site and sent afterwards). Provide next step information on locating trained and professional service providers.

A more advanced whole home audit and improvement program, Home Performance with ENERGY STAR is appropriate in markets that have gained some program experience and developed a network of qualified contractors and can commit to multi-year program cycles. (Additional information is available at www.energystar.gov/homeperformance).

Whether clip board or advanced, all in-home audit programs can benefit from the following:

- Direct installation free of charge of a few low cost measures, which guarantees some level of energy improvement for every home audited by the program. Installation of ENERGY

STAR certified bulbs and WaterSense⁵ low-flow showerheads are common.

- Access to financing via the utility or lending partner providing a path for customers to make the recommended changes.
- Information on other program offerings such as rebates that lower the cost of improvements.
- Qualified contractors and trade allies. Online resources such as www.energystar.gov/partnersearch and www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_hvac_contractors_find can help identify trade allies that are familiar with building science and ENERGY STAR program requirements.

Energy Efficiency Measures on a Consumer Premises

Some of the most common types of efficiency programs offered throughout the country involve financial incentives targeted toward energy-efficient products for the home, particularly where there is a higher incremental cost associated with the efficient option. It is considered best practice to rely on ENERGY STAR as a minimum efficiency criterion for rebates and to specify ENERGY STAR even when promoting higher efficiency criteria, since EPA requires third-party certification to ensure energy savings from ENERGY STAR products. The table on the following page provides a list of commonly promoted products and average per unit savings above the Federal standards as of June 2014. Since program specifications change as markets mature, energy efficiency program sponsors are encouraged to keep abreast of changes to program criteria at www.energystar.gov/productdevelopment.

Common program elements include:

- Consumer marketing, outreach, and education on the targeted product and leveraging ENERGY STAR national campaigns;
- Outreach and training to retailers and other major distribution channels (e.g., big box retailers, local retailers, grocery and hardware stores, and contractors) depending on focal products to ensure both availability and promotion of efficient products; and
- Financial incentives including consumer-direct rebates, or rebates, buy-downs, and cooperative marketing incentives offered through retailers and other major distribution channels.

Additional program elements that are common and considered best practice when promoting energy-efficient products include:

- Retirement and proper recycling of refrigerators to ensure old inefficient units do not get resold or become second refrigerators. While many rural utilities lack infrastructure for

⁵ WaterSense, a partnership program by the U.S. Environmental Protection Agency, seeks to protect the future of our nation's water supply by offering people a simple way to use less water. Products that have earned the WaterSense label have been certified to be at least 20 percent more efficient without sacrificing performance. www.epa.gov/watersense/.

Illustrative Savings of ENERGY STAR Certified Projects Compared to Minimum Standard

PRODUCT	UNIT SAVINGS (kWh)	LIFETIME SAVINGS (kWh)
ENERGY STAR-CERTIFIED PRODUCTS THAT TYPICALLY CONVEY W/ SALE OF PROPERTY*		
Electric water heater**	2,500	35,000
Air source heat pump**	800	9,500
Geothermal heat pump**	5,000	62,000
Central air conditioner**	350	5,000
Ceiling fan with light kit	70	700
Vent fan	50	550
ENERGY STAR-CERTIFIED PRODUCTS THAT MAY CONVEY W/ PROPERTY SALE AS STIPULATED IN CONTRACT AND INFORMED BY LOCAL/REGIONAL PRACTICE		
Refrigerator	50	600
Clothes washer	100	1,000
Clothes dryer	250	4,000
Dishwasher	50	600
OTHER ENERGY STAR-CERTIFIED PRODUCTS COMMONLY PROMOTED BY ENERGY EFFICIENCY PROGRAMS		
Light bulb	30	300
Room air conditioner**	100	800
Dehumidifier	100	950

Note: Savings estimates are rounded values based on recent ENERGY STAR specifications.

* The list above is not inclusive of all ENERGY STAR products. Other ENERGY STAR products, such as windows, doors, and skylights, may also convey with a home.

** Savings vary by climate for this product category.

responsible appliance disposal locally, arrangements can often be made with national recycling organizations for scheduled pick-up with appropriate volume, particularly if another utility offers a program in a nearby area. EPA's Responsible Appliance Disposal (RAD) program is a good resource for more information on this topic; see www.epa.gov/rad.

- Ensuring quality installation of central heating and cooling systems—while rebates may be the simplest way to engage HVAC contractors during initial program years, it makes sense to address quality installation as much of the efficiency of equipment can be lost due to oversizing, incorrect refrigerant charge, inadequate air flow and a faulty distribution system.

Re-lamping⁶ to More Efficient Lighting

ENERGY STAR certified lighting is a common and cost-effective target for energy efficiency programs across the nation. In addition to residential applications, ENERGY STAR certified lighting is often promoted to small businesses and for other limited commercial applications. Consumer guidance tools are available on how to choose lighting based on appearance, brightness, and application.

The Federal Energy Management Program (FEMP), also referenced in the USDA rulemaking, provides acquisition guidance for Federal purchases defining efficiency criteria for lighting that Federal purchasers must meet or exceed including categories not covered by the ENERGY STAR program such as fluorescent ballasts and luminaires, exterior lighting, and industrial luminaires. Information and related guidance can be found at www.energy.gov/eere/femp/covered-product-categories.

Typical program elements employed by energy efficiency program administrators include the following:

- Financial incentives that cover a portion of the incremental costs of installing more efficient technology are a common approach with programs setting incentive levels to deliver payback in one to two years.
- Incentive designs linked to ENERGY STAR specifications when relevant.
- Program marketing via trade allies—manufacturers, vendors, equipment installers, and retailers. Regular communication with trade allies allows program administrators to address issues as they arise and ensures they are actively engaged in promoting the program. In some cases, trade ally incentives are offered to motivate sales of qualifying lighting.
- Additional marketing and outreach to end users. Offices, retail space, warehouses, and schools are common targets for re-lamping initiatives, as they tend to be among the largest users of lighting.
- To discourage over-lighting, many programs encourage or require proof that lighting retrofits meet IES recommended light levels and uniformity.

⁶ Re-lamping is industry terminology for replacing existing lighting (bulbs or fixtures). In the context of utility efficiency programs, it implies replacement with energy efficient lighting.

ENERGY STAR Resources

By leveraging ENERGY STAR, organizations can reduce program costs and implementation timelines while increasing program effectiveness. The following tools are available to ENERGY STAR partners free of charge. To become a partner, please visit www.energystar.gov/join. For limited or one time promotion of ENERGY STAR using the program promotional mark, contact media@energystar.gov.

ENERGY STAR CO-BRANDING

ENERGY STAR is a powerful and recognizable mark of energy and environmental performance.

- Recognized by more than 85% of U.S. households.
- Designating efficiency in 70+ product categories, as well as homes and buildings.
- Certified by third-parties to ensure delivery on performance.
- About 40% of U.S. households purchase an ENERGY STAR-certified product or home each year!



Leverage ENERGY STAR when developing program marketing and educational materials or take advantage of existing brochures, videos and guides, many of which are designed for co-branding.

To learn more about how partners can correctly leverage the ENERGY STAR trademark visit: www.energystar.gov/logouse.

PROGRAM SUPPORT

The ENERGY STAR Program provides energy efficiency program partners with a regional Account Manager to assist with effective programming. Account managers can:

- Arrange meetings with EPA program leads and other experts to discuss strategic program planning, particularly in advance of important filings.
- Educate teams about the ENERGY STAR platform for energy efficiency programs as well as related tools and resources.
- Provide information on strategies that are working for other programs in your region or throughout the nation.
- Review ENERGY STAR marketing and outreach materials for proper use before going to press.

Don't know your account manager? Email EEaccountmanager@icfi.com. Be sure to indicate the state(s) where you operate.

BEST PRACTICE RESOURCES

Download program guides and fact sheets about design and implementation of effective ENERGY STAR programs based on the experiences of other efficiency programs nationwide. Available resources include:

- Building Performance with ENERGY STAR Program Framework
- Consumer Electronics Program Guide
- Commercial Food Service Program Guide
- Data Center Program Guide
- Home Performance with ENERGY STAR Sponsors Guide
- Next Generation Lighting Programs
- Resources for ENERGY STAR Certified Homes Programs



Guides are available at: www.energystar.gov/index.cfm?c=ppg_portfolio.ppg_portfolio_1.

PARTNER NETWORKING AND INFORMATION EXCHANGE

ENERGY STAR provides opportunities for partners to engage one another and benefit through shared learning experiences.



- **Annual ENERGY STAR Partner Meetings**—meet in person, learn about program updates, and exchange program information with industry partners including manufacturers, builders, retailers, and more.
- **Searchable Partner Database**—discover which utilities have already teamed up with ENERGY STAR: www.energystar.gov/partnersearch.
- **Database of Incentives and Marketing Exchange (DIME)**—share marketing and financial incentives for ENERGY STAR-certified products with other partners: www.energystar.gov/dime.
- **Webinars and Newsletters**—participate in webinars highlighting program updates, new tools, and effective program strategies or sign up for newsletters to receive written updates.

NATIONAL CAMPAIGNS

Bring the power of partnership to your local market with EPA-facilitated national campaigns including:



- **Change the World, Start with ENERGY STAR**—Engage customers in saving energy at home, at work, and throughout the community by committing to purchasing practices and behaviors that save energy, save money, and mitigate climate change.
- **Low Carbon IT**—Help organizations tap into assistance and recognition for reducing energy use in information technology equipment.
- **National Building Competition**—Promote this exciting competition that pits buildings across the nation against each other in a battle to trim the most energy waste.
- **ENERGY STAR Challenge for Industry**—Challenge industrial customers to reduce energy intensity by 10 percent in five years or less.

AWARDS AND RECOGNITION

EPA is always looking to recognize ENERGY STAR partners for their achievements. Take advantage of these opportunities to promote your ENERGY STAR success:

- **Partner of the Year Awards**—EPA recognizes partner achievement in successfully leveraging ENERGY STAR to transform markets. Successful applicants are presented awards at the ENERGY STAR Awards banquet and reception in Washington, D.C. each spring.
- **Campaign Leadership**—the Change the World, Start with ENERGY STAR Campaign affords partners the opportunity to be publicly recognized for success in motivating customer action through My ENERGY STAR (see below).
- **Social Media and More**—Partner innovation and local events are often highlighted through energystar.gov, social media, webinars, newsletters, case studies and best practice guides.



INTERACTIVE TOOLS

ENERGY STAR provides a variety of tools and resources that can help educate consumers about making their homes more energy efficient—whether they are ‘do-it-yourselfers’ or through a qualified professional. Leverage these great tools to educate customers about energy efficiency:

ENERGY STAR @ HOME TOOL

This animated tool takes consumers through a room-by-room home tour. Viewers click around the virtual home to discover what can be done to save energy and money at home. Partners can:

- Link to the @ home tool from their website.
- Host the @ home tool in an iFrame.
- Customize energy saving tips to link to program rebates and resources.



Learn more at: www.energystar.gov/home.

ENERGY STAR HOME ADVISOR

Helps homeowners get recommendations on home improvement projects appropriate for the area where they live. Partners can host the tool on their websites and customers will input some basic information about their home to obtain customized advice.

[Click here](#) for instructions on how to link this tool to your website and learn more at: www.energystar.gov/homeadvisor.



ENERGY STAR HOME ENERGY YARDSTICK

Allows homeowners to see how their home energy usage compares with similar homes across the country based on a 1-10 scale, and how much of their home energy usage is related to heating and cooling versus other every day uses. An estimate of the home’s annual carbon emissions is also provided along with guidance on how to increase the home energy score, improve comfort, and lower utility bills.

The Yardstick is available as ‘syndicated content’—partners can host the tool directly on their websites.

[Click here](#) for instructions and learn more at: www.energystar.gov/yardstick.



MY ENERGY STAR CONSUMER ENGAGEMENT PLATFORM

An interactive web tool that provides a one-stop shop for consumers to learn about all the ways they can save energy at home, from ENERGY STAR certified products to home improvement projects and tips. Users access a private dashboard to create a personal plan of action and get feedback including information on relevant partner rebates and promotions. Partners can leverage My ENERGY STAR to connect with customers to help them achieve their personal efficiency goals. Options include a:

- Customized My ENERGY STAR landing page through a unique partner URL that enables partners to co-brand the platform and highlight advice most relevant to their goals using a Featured Advice Filter.
- Customized partner iFrame to allow partners to incorporate My ENERGY STAR on their own website.



ENERGY STAR PORTFOLIO MANAGER FOR COMMERCIAL BUILDING BENCHMARKING

A nationally recognized online tool that enables customers to measure and track building energy, water consumption, and greenhouse gas emissions, and compare performance to similar buildings. Connect customers to Portfolio Manager to:

- Benchmark building performance of one or a portfolio of buildings.
- Track changes in energy, water, emissions, and cost.
- Create and share custom reports.
- Apply for ENERGY STAR certification.



Partners can:

- Link to Portfolio Manager directly from their website.
- Use Portfolio Manager web services to enable seamless exchange of building characteristics, energy data, and performance metrics with Portfolio Manager.
- Leverage Portfolio Manager in program design to motivate customers and inform investment.

Learn more at: www.energystar.gov/benchmark and portfoliomanager.energystar.gov/webervices/home.

PRODUCT FINDER

Provides access to ENERGY STAR product information arming consumers with the information they need to make purchasing decisions based on energy efficiency and other product features. Partners can:

- Link to product finder from their website.
- Use advanced features to support data analysis and export including:
 - Building custom reports (eight export options).
 - Creating data visualizations to embed on your website.
 - Using an application programming interface to power your own tools, build apps, and more.



Learn more at: www.energystar.gov/productfinder.